



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

March 31, 2009

David Garrett, P.G., P.E.
David Garrett & Associates
5105 Harbour Towne Drive
Raleigh, NC 27604

RE: Application for Permit to Construct, Expansion
CMS Landfill V-Phase 3 (Cells 2I, 2J, 2K, 2M), MSW Landfill
Additional Information Request – Design Hydrogeologic Report
Permit No. 13-04
Document No. 7121

Dear Mr. Garrett:

The above referenced Design Hydrogeologic Report for the proposed expansion Phase 3 (Cells 2I-2K and 2M) of CMS Landfill V-Phase 3, MSW Landfill has been submitted by David Garrett & Associates, on behalf BFI Waste Systems of North America, Inc.; Charlotte Motor Speedway (CMS) MSW Landfill V-Phase 3, in Cabarrus County. There are several items in the Hydrogeologic Report that require clarification and/or revision before the hydrogeologic review can be completed. Please respond to the following questions and comments:

Design Hydrogeologic Report – August 29, 2008

Contents –

Lists of Tables

Table 1B – Test Pit Data

Section 3.4.1 – Test Pits

Page 3-8 under Section 3.4.1 (Test Pits) states in-part: “A summary of soils data collected from the test pits is presented in Table 1B. Table 1B could not be located in the Hydrogeologic Report; please submit the table.”

Design Hydrogeologic Report – August 29, 2008
Section 1.0 Introduction
Sheet No's. 2, 3, 9

Section 1.0, Page 1-2 states in-part: *"The poor drainage within the "saddle" area gave rise to the tentative identification of a small wetlands area within the central portion of Phase 3. A recent delineation has been performed (in 2008) by a qualified consultant (Carolina Ecosystems), which confirmed the presence of wetlands, perhaps smaller than originally mapped by a previous consultant, but as of this writing the US Army Corps of Engineers has yet to make a final determination of the size of the wetlands impact....." "That determination will be pursued while this work is under review by NC DENR Division of Waste Management. Revisions to this report will be made once the Corps has made those determinations".*

The maps provided in the report delineate areas of wetlands east of proposed cells 2I and 2J, outside of the proposed footprints. As stated above small areas of possible wetlands maybe located within the central portion of Phase 3, but are not delineated on the maps provided. As stated above, keep the Division of Waste Management (Solid Waste Section) updated on the US Army Corps of Engineer's wetland determination.

Design Hydrogeologic Report – August 29, 2008
Section 3.0 – Hydrogeologic Investigation
Section 3.2.3 – Springs, Seeps, and Ground Water Discharge Features
Appendix F – Water Quality Monitoring Plan
Section 1.3 – New Monitoring Location Criteria
Table 1 – Monitoring Well and Surface Water Sampling Location Data
Sheet No's. 3, 4, 5, 6, and 9

Section 3.2.3, Page 3-3 states in-part the following: *"No perennial streams were noted in the Phase 3 area, but there are man-made drainage ditches present. The central "saddle" (within Phase 3) drains via the ditches toward the seasonal spring, which drains via a small intermittent stream within the Furr tract to an unnamed tributary east of the study area. This stream, in turn, drains to the Rocky River".*

Perhaps a shallow screened monitor well should be located near this preferential flow area between proposed groundwater monitoring wells, MW-43 and MW-44. Further open discussion for location of this well and other proposed groundwater monitoring wells is suggested to determine final location of proposed wells.

Section 1.3, page 2 of the Water Quality Monitoring Plan (Appendix F) states in-part: *"Based on a review of the site topography and hydrogeologic conditions. A monitoring network for Phase 3 should +consist of ten (10) new well locations (MW-35 – MW-44)."* Table 1, Page 19 of the Monitoring Plan is titled "Phase II Monitoring wells" and lists the wells as proposed wells. Other sections of the report (i.e. the statement mentioned above) and maps (i.e. Sheet No. 9) refer to the new phase, as "Phase 3". Please revise accordingly.

Design Hydrogeologic Report – August 29, 2008
Section 3.0 – Hydrogeologic Investigation
Section 3.6.2 – Long-Term Water Levels
Appendix D – NOAA and NURE Data
Appendix E – Slug Test Data and Permeability Calculations
F – Water Quality Monitoring Plan

Page 3-15, second, third, and fourth paragraph of Section 3.6.2 refers to Appendix E, pertaining to climatic data. The correlating Appendix is probably Appendix D, instead of E. Please revise accordingly.

Design Hydrogeologic Report – August 29, 2008
Appendix C – Geotechnical Laboratory Data

This data is missing in the Report; please submit accordingly.

Design Hydrogeologic Report – August 29, 2008
Appendix E – Slug Test Data and Permeability Calculations

This data is missing in the Report; please submit accordingly.

Design Hydrogeologic Report
Appendix F – Water Quality Monitoring Plan

According to recent groundwater sampling data, some of the existing groundwater monitoring wells at the facility are designated as assessment monitoring wells. The wells are MW-12, MW-14, MW-18A, MW-19, MW-19A, and MW-20B. The Water Quality Plan listed in Appendix F does not list these wells for Appendix II monitoring; therefore, please modify the text and associated tables to reflect this.

Mr. David Garrett
CMS Landfill PTC, Hydrogeologic Report-Phase 3 (Cells 2I – 2K & 2M)
Hydro- addin-request
Page 4 of 4

Please update the Water Quality plan accordingly to include recent Solid Waste Section guidelines. The guidelines are located at the Solid Waste Section's web site, under the subcategory "Environmental Monitoring". The web link address to this portion of the Solid Waste Section's main page is:
http://www.wastenotnc.org/swhome/enviro_monitoring.asp

Pertinent guidelines to include in the monitoring plan are:

"Groundwater, Surface Water, and Soil Sampling for Landfills"
"Leachate Sampling and Analysis"
"Solid Waste Environmental Monitoring Data Form"
"Electronic Data Deliverable (EDD) Template"
"October 2007 Memo"
"October 2006 Memo"
"Addendum to the October 2006 Memo"

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Please note the comments and questions raised above and provide additional information and revisions as needed. If you have any questions or wish to schedule a meeting to discuss the items referenced in this letter, please call me at 919-508-8524.

Sincerely,



Brian Wootton
Hydrogeologist
Solid Waste Section

cc: Mike Gurley, Env. Manager
Ed Mussler, P.E.
John Murray, P.E.

BFI Waste Systems of NA, Inc.
Solid Waste Section
Solid Waste Section